

Appl. No. 09 / 587,270
Amdt. Dated August 19th, 2004
Reply To Office action of August 6th, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application, changes made herein are only the formal corrections requested by the examiner:

Listing of Claims:

Claims 1-3 (CANCELED)

Claim 4 (CURRENTLY AMENDED). A variable wavelength impulse transmission method, comprising:

sending one-cycle electromagnetic impulse(s) without carrier wave;

wherein data is encoded in said the transmission by choosing an appropriate wavelength for each of said the impulses according to the a respective value of data being sent;

receiving said impulses and decoding the data carried by them.

Claim 5 (CURRENTLY AMENDED). A variable wavelength impulse transmission method according to claim 4, comprising:

wherein said impulses are sent in certain intervals;

wherein the data is optionally encoded in said transmission as a combination of said wavelength encoding, and impulse position encoding, said impulse position encoding comprising choosing an appropriate position for each of said impulses in an impulse transmission interval according to the respective value of data being sent.

Claim 6 (CURRENTLY AMENDED). A variable wavelength impulse transmission method according to claim 4, comprising:

wherein ~~the~~ a wavelength of the received impulse is recognized by measuring the a time difference between the positive and negative amplitude maximums of its AC equivalent.

Claim 7 (CURRENTLY AMENDED). A variable wavelength impulse transmission method according to claim 5, comprising:

wherein it is reserved an own reception channel for each unique type of impulse used in said transmission according to the combination of the impulse wavelength and the impulse position in a transmission interval;

wherein a said reception channel amplifies the received impulse with an AC impulse that corresponds the impulse type for which said reception channel is reserved;

wherein said the amplified impulses are compared between the reception channels to find the one which is the most intense, the right type of the received impulse being denoted as ~~the~~ an assigned impulse type of the reception channel which yielded said the most intense amplified impulse.

Claim 8 (CURRENTLY AMENDED). A variable wavelength impulse transmission method according to claim 5, comprising:

wherein ~~the~~ a cue of impulses in the transmission is divided in transmission channels either by assigning every nth impulse for a single channel, or by determining an order path according to which the impulses are assigned for each channel.

Claim 9 (CURRENTLY AMENDED). A variable wavelength impulse transmission method according to claim 5, comprising:

wherein the used impulse wavelengths are allocated between separate overlapping transmissions so that the transmissions interfere with each other as little as possible;

wherein ~~said~~ the allocation is optionally done constantly in real-time.

Claim 10 (PREVIOUSLY PRESENTED). A variable wavelength impulse transmission method according to claim 6, comprising:

wherein it is used electric impulses instead of electromagnetic impulses in said transmission.

Claim 11 (PREVIOUSLY PRESENTED). A variable wavelength impulse transmission method according to claim 7, comprising:

wherein it is used electric impulses instead of electromagnetic impulses in said transmission.

Claim 12 (CURRENTLY AMENDED). A wireless communication system, comprising:

two wireless communication devices;

transmitting data between ~~said~~ the devices;

wherein ~~said~~ the transmission happens using one-cycle electromagnetic impulses which are sent without carrier wave;

wherein the transmitting device is capable to choose ~~the~~ a wavelength for ~~said~~ the impulses from among two or more different wavelengths.

Claim 13 (PREVIOUSLY PRESENTED). A wireless communication system according to claim 12, comprising:

wherein said devices are capable to transmit and receive data using simultaneously two or more different wavelengths of said impulses.

Claim 14 (CURRENTLY AMENDED). A wireless communication traffic organization system, comprising:

multiple wireless communication devices;

wherein said the devices use a transmission method, where data is transmitted without carrier wave, using one-cycle electromagnetic impulses;

wherein different impulse wavelengths are allocated for different use.

Claim 15 (CURRENTLY AMENDED). A wireless communication traffic organization system according to claim 14, comprising:

wherein said the allocation is done so that ~~the~~ an overlapping transmissions interfere with each other as little as possible;

wherein said allocation is optionally done constantly in real-time.

Claim 16 (CURRENTLY AMENDED). A wireless communication traffic organization system according to claim 14, comprising:

wherein said allocation is done according to ~~the~~ an ability of different wavelength impulses to pass obstacles and / or according to ~~the-needed~~ a need transmission power of different wavelength impulses;

wherein said allocation is optionally done constantly in real-time.